The Commentaries of Proclus on the First Book of Euclid's Elements of Geometry Translated by Thomas Taylor (London, 1792) Book I, Chapter 4

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August 2020

[Thomas Taylor, The Philosophical and Mathematical Commentaries of Proclus, Vol. 1, pp. 51–52 (1792).]

CHAP. IV.

How these Common Properties subsist, and by what Science they are considered.

BUT it is requisite to believe, that these common properties do not primarily subsist in many and divided forms, nor originate from things many and the last: but we ought to place them as things preceding in a certain simplicity and excellence. For the knowledge of these antecedes many knowledges, and supplies them with principles; and the multitude of sciences subsist about this, and are referred to it as their source. Thus the geometrician affirms, that when four magnitudes are proportional, they shall be alternately proportional; and he demonstrates this from principles peculiar to his science, and which the arithmetician never uses. In like manner, the arithmetician affirms, that when four numbers are proportional, they shall be so alternately: and this he evinces from the proper principles of his science. For who is he that knows alternate ratio considered by itself, whether it subsists in magnitudes or in numbers? And the division of composite magnitudes or numbers, and in like manner, the composition of such as are divided? They are surely not the sciences and cognitions of things divisible: but we have no science of things destitute of matter, and which are assigned a more intellectual contemplation; for the knowledge of these is by much prior to science, and from these the common reasons of many sciences are derived. And there is a gradual ascent in cognitions from things more particular to more universal, till we revert to the science of that which is, considered as it is, abstracted from all secondary properties. For this sublime science does not think it suitable to its dignity, to contemplate the common properties which are essentially inherent in numbers, and are common to all quantities; but it contemplates the one, and firm essence of all the things which are. Hence, it is the most capacious of all the sciences, and from this all the rest assume their own peculiar principles. For the superior sciences always afford the first suppositions of demonstrations to such as are subordinate. But that which is the most perfect of all the sciences, distributes from itself principles to all the rest, to some indeed, such as are more universal, but to others, such as are more particular. Hence, Socrates, in the Theætetus, mingling the jocose with the serious, compares the sciences which reside in us to doves: but he says they fly away, some in flocks, but others separate from one another.

For such, indeed, as are more common and more capacious, comprehend in themselves many such as are more particular: but such as being distributed into forms, touch things subject to knowledge, are distant from one another, and can by no means be copulated together, since they are excited by different primary principles. One science, therefore, precedes all sciences and disciplines, since it knows the common properties which pervade through all the genera of beings, and supplies principles to all the mathematical sciences. And thus far our doctrine concerning dialectic⁶ is terminated.

⁶Of human disciplines, those alone deserve to be called sciences which use no hypotheses, which resolve things into their principles, which are conversant with true being, and elevate us to ideas themselves. Dialectic is wholly of this kind (I mean the dialectic of Plato); for this alone uses no suppositions, but, neglecting shadows and images, raises us, by a sublime investigation, to the principle of the universe; and on this account, deserves to be called the very apex of disciplines. But we must not imagine, that by the word dialectic here, is meant logic, or any part of logic, or that method of disputation, by which we fabricate probable reasons; but we must conceive it as signifying a discipline, endued with the greatest acuteness; neglecting all hypotheses, truly soaring to primary causes, and ultimately reposing in their contemplation. Plotinus has given us most happy specimens of this method, in his books on the genera of being.